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lines would not need to enter in. Further, I call attention to the fact that the second illumination of the *Nova* in the autumn of 1892 can be attributed to a meeting of the body hastening through the supposed solar system with a single outside member of the same; and I notice still further, that indeed the surest proof of the correctness of the views here expounded would be given, if the changes of the wave-lengths of the bright lines in the spectrum now visible would allow themselves to be proven with greater certainty as CAMPBELL'S observations indicate them, which would allow us to assume an orbital motion.

"However, I will no longer lose myself in details, since it was my purpose in the main, only to show: that the probability for the meeting of a body traveling about in space with an orderly system of bodies is none too slight, since against the supposition of a planetary system among the fixed stars there is nothing to be urged; and that through the supposition of such a system, in which a body which moves with the abnormal velocity of 400 to 450 miles could have remained for weeks, yes, months (since, for example, it would need fully five months to traverse our solar system) the most important of the observed appearances of the *Nova* can find a natural explanation."

THE NEW STAR IN *NORMA*.

Brief reference was made in the November number of these *Publications*, page 225, to the discovery of a new star in the southern sky. In response to Professor PICKERING'S telegram to the observatories, announcing the discovery, Professor KAPTEYN suggested that the star was almost without doubt identical with a 9.2 magnitude star shown on five Cape of Good Hope plates, exposed in the years 1887-1890. Fortunately Professor PICKERING was able to remove all doubt on this point; and in case the star remains bright a few months we shall probably obtain considerable information which will be exceedingly valuable in the study of new stars. Professor PICKERING points out the fact that the main features of this star's spectrum are identical with those of *Nova Aurigæ's* February, 1892 spectrum. If now the bright lines in *Nova Normæ's* spectrum should be found to be multiple, as was the case in *Nova Aurigæ's* spectrum, we could safely attribute an identical origin to the two stars. Further, many of the *special* theories propounded by various spectroscopists to explain *Nova Aurigæ's* spectrum would necessarily give way to the more *general* theories.

When this star is on the meridian of Mt. Hamilton, its altitude above the horizon is only about 2½°. While observations of it will be attempted here in February and the following months, they cannot be successful in more than a very limited degree.

We quote in the following article Professor PICKERING'S account of the discovery, as published in the *Astronomische Nachrichten.* W. W. C.

A NEW STAR IN *NORMA.*

"A new star appeared in the constellation *Norma* during last summer. It was discovered by Mrs. M. FLEMING on October 26, when examining a photograph of the spectra of the stars in its vicinity. The photograph was taken on July 10, 1893, at the Arequipa station of this observatory by Professor SOLON J. BAILEY. The spectrum appears to be identical with that of the new star which appeared in *Auriga* in December, 1891. Comparing the spectra of the two stars taken with nearly the same dispersion, about a dozen lines are visible in each and are identical in wave-length. The hydrogen line $H\beta$ which is bright in both stars is more intense in the star in *Norma* than in that in *Auriga.* It is in fact more intense in the former star than any other line in the spectrum, while the $H\gamma$ line is generally the strongest in *Nova Aurigæ.*

"A photograph taken June 21, 1893, showed the spectra of stars of the 10th magnitude, but no trace of the new star was visible upon this plate, although it covered the same region and was in other respects like that taken on July 10. Photographic charts of the same region taken on June 6, June 10, July 21, 1889; May 16, May 16, June 10, June 23, June 23, 1891; May 7 and May 27, 1893, show no image of this object, although stars of the 14th magnitude are visible upon some of them. We may therefore conclude that the star appeared within ten days of the first of July, and that previously it was either invisible or extremely faint.

"The position was found by comparing the ends of the hydrogen lines $H\gamma$ and $H\delta$ which are bright in this star, with the corresponding dark lines in the adjacent stars *Cord. G. C.* 20940 and 21006. They give the approximate mean position for 1900 in Right Ascension $15^h\ 22^m\ 12^s$, Declination $-\ 50^\circ\ 13'.8$. A more